



GEAR UP

Essentials for a new rider

IERSEY
It's cut longer in back
and shorter in front to
cover the base of your
spine and keep material from binding up at
your midsection when
you're riding. It also
has rear pockets to
carry stuff.

SHORTS
They're made
of multiple panels of
material to create a
smooth, snug fit. And
they include a chamois—a padded liner
that protects you from
soreness and chafing.

SHOES

If you're using platform pedals—the kind
you don't clip your
shoes into—go for
the stiffest sole possible. Most road-riding
shoes come with cleats
that engage with the
pedals, to maximize
your power output (see
opposite page).

To be blunt: Wear one.
Most helmets sold
in bike shops meet
the same safety standards whether they
cost \$40 or \$300, but
some manufacturers are now making
lids meant to prevent
concussions as well as
more serious trauma.



Positioned for Success

f you're new to a road bike, you may feel on your first rides as if your body is being thrown unnaturally far forward. Because your whole torso is relatively low to the ground, it might seem as if you could go over the bar at any second. Stay relaxed and practice riding in low-traffic areas, and soon your fight-or-flight reptilian brain will learn that this position is as comfortable and as safe as any other—because it is.

There are three riding positions. The most common is neutral, in which your hands are generally on top of the hoods (which cover the brake levers) so you have access to the brakes and shifters. If the bike fits you properly, you will be able to freely turn your head to look around, not have too much pressure on your hands, and feel comfortable for extended periods of time. Viewed from the side, your torso and arms should almost form a 90-degree angle. Make an effort to keep your shoulders broad and away from your ears and your chest forward.

When you need to lower your torso or center of

gravity, the C-shaped lower portion of your handle-bar—called the "drops"—is there for you. You'll want your hands in the drops most often when descending, especially down long, steep inclines. Your torso will be bent more forward from the hips and your wrists will be angled so you can readily reach the brake levers, and you'll have more leverage when you use them. When you move to this position for descending, you'll also shift your weight slightly backward in your seat and toward the rear wheel to give you more traction.

As you spend more time in the saddle and find your comfort zones, try standing, a position mostly used when climbing but also to rest your muscles and soft tissues. To stand, start in a neutral position. As you rise up, your weight will naturally shift forward, which may cause your bike to lurch a bit. Keep your arms relaxed so you can easily make this transition without swerving. With your torso bent slightly forward, keep your hips (essentially your center of gravity) still, mostly centered above and just in front of the nose of the saddle.

STEER CLEAR OF ROAD TROUBLE

STAY UPRIGHT WITH THIS SIMPLE ADVICE

POTHOLES & DEBRIS

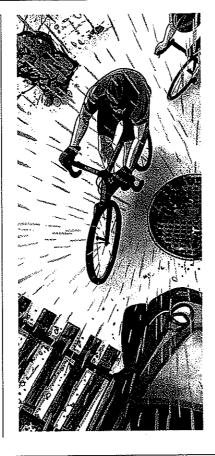
Keep your eyes up the road so you can move out of the way of the likes of broken glass and loose gravel. If you can't avoid an obstacle, stand on your pedals and relax your arms and legs. Don't hit the brakes; momentum will help carry you over.

RAIN

Ride a little slower than normal, give yourself longer to slow, and make yourself as visible as possible with bright clothing or lights.

RAILROAD TRACKS

Always cross the tracks as close to 90 degrees as possible. By making your path perpendicular to the grooves, you're less likely to fall into them. If the tracks are raised or rutted, coast over them without braking.



OTHER CYCLISTS

On a shared path, you might be cycling with people who may have no idea how to ride with others. Slow down and ring your bell or call out a warning of "On your left!" before passing on that side.

WET LEAVES OR METAL

Brake and slow down before, for example, rolling over rain-soaked manhole covers. When your tires make contact, coast—don't pedal or brake. Accelerating or hitting the brakes can cause your wheels to slide out.

MOTOR VEHICLES

Keep an eye out for cars exiting or entering driveways or other turns. If it looks like a car is slowing but isn't signaling, assume it is going to turn anyway and wait to see what it does before proceeding.

FIT FIRST

Have a new bike? Get a professional bike fit to see if you need to swap out these parts.

STEM

The stem affects how far you have to reach for the handlebar and is probably the most commonly replaced part because arm and torso lengths vary from rider to rider. Cost: usually around \$40, but can go as high as \$250.

HANDLEBAR
The width and depth of
the bar also affect your
reach, \$40-\$300

SEATPOST

You may need one that allows the saddle to be moved forward or back to optimize your position. \$20-\$200

SADDLE

The seat is another commonly changed part. Some riders need one that has different pressure points or a cut-out area. After an hour of riding, your bottom will tell you if you have the right model. \$40-\$400

CABLES

If a stem or handlebar swap makes the reach significantly longer, your brake and shifter cables may need to be replaced with longer ones. \$20-\$60—and labor to change them is sometimes not included.

Clipping In (and Out)

Many cyclists use a clipless pedal system—that is, they wear shoes with cleats designed to attach to the pedals—because that setup offers greater

power with each revolution of your feet and more control. It's easiest to clip into the pedal at the bottom of the stroke. The pedal has a spring that opens slightly to allow the cleat to become attached when you push down and forward firmly. To release: Keeping both feet level to the ground, press down lightly while twisting one foot so your heel kicks out slightly. Always unclip as you slow down, but well before you stop. When you buy pedals, have the shop install them, then put your bike in a stationary trainer and practice these motions.



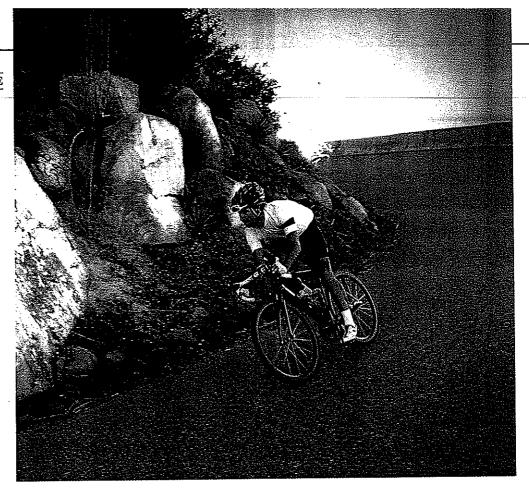
FUEL SMART

The right foods do great things for your body. On the bike, they give you energy; off the bike, they repair and recharge your muscles.

Carbohydrates are your main energy source. The key is to know what type to consume, and when. Typically, slow-burning complex carbs (whole grains and oats) are best at dinner; starchy complex carbs (white rice or potatoes) are good as a mediumburning fuel to keep you riding strong; and for hard efforts over short periods of time, turn to simple carbs like honey.

Your body needs protein to rebuild your
muscles so that your
effort on the bike
makes you stronger for
next time. It also suppresses your appetite
while revving up your
metabolism because it
takes longer to digest.
Complete proteins
include meat, dairy,
eggs, and soybeans.

Fat is an excellent source of fuel, giving you the ability to cycle longer and harder without crashing from low blood sugar. It also keeps you from getting hungry. Go for natural sources of it, like olives, nuts, seeds, and avocados.



Turn the Corner

ost novices intuitively assume that steering through corners requires turning the handlebar. This is true at very slow speeds, but mostly you guide the bike around curves by leaning the frame and shifting your weight in the direction you're turning.

First, and we can't emphasize this enough, relax. Loose joints allow you to move around on the bike easily and stay off the brakes. Next, look ahead, through, and around the bend. You'll be tempted to look straight into the corner of the turn. If you do, that's where you'll ride-possibly right off the road. It may sound counterintuitive, but force yourself to look as far down the road as possible by following the pavement markings until they disappear on the horizon. Sometimes this means your head will be turned completely to one side, and it may seem like you're not watching where you're going, but that's precisely what you're doing. When you look far ahead, your bike and body will naturally veer in the correct direction while your peripheral vision picks up any obstacles on the road in front of you. As you coast around the corner, make a wide arc. To do this, you'll use the whole

lane, so make sure traffic is clear. As you enter the turn, start with your bike close to the outside of the curve. Riding into it, aim for the inside of the corner (but don't cross into the other lane). As you exit, are back to the outside.

Position your feet so your inside pedal (the one closest to the apex) is up and your pedal closest to the outside of the road is down. This will naturally angle the bike somewhat, and this temporary shift in your normally upright position might seem a little scary at first, but it takes advantage of the bike's natural gravitational pull. If you try to fight this by keeping your bike upright, you'll lose traction and speed.

On fast corners, try putting your hands in the drops to lower your center of gravity and stabilize yourself. Because the gravitational forces of riding through a curve will cause you to accelerate, always lower your speed before entering the turn. By the time you hit the bend, you should already have slowed down enough that you barely touch the brakes. The thing to avoid: braking hard in the turn. That changes your weight distribution and causes the bike to go from leaning and gripped to the road to upright, difficult to control, and likely to skid out.

OUICK-CHANGE ARTIST

IF YOU DO EVEN A MODERATE AMOUNT OF RIDING, YOU ARE GOING TO GET A FLAT TIRE AT SOME POINT. THE GOOD NEWS? YOU CAN BECOME A SKILLED FLAT-REPAIR EXPERT IN NO TIME.

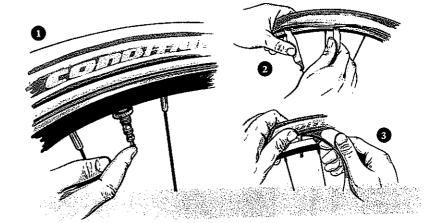
WHAT YOU'LL NEED A NEW TUBE 2 TIRE LEVERS A FLOOR PUMP HAND PUMP, OR CO2 CARTRIDGE AND INFLATOR

REMOVE THE INNER

1. Open the quick-release or unbolt the axle and remove the wheel from the bike. Remove as much air as possible from the tire by compressing the valve stem. 2. Working at the area opposite the valve stem, use the rounded end of a tire lever to pop one bead (the hard edge of the tire) off the rim and hook the other end of the lever onto the spoke below. This will keep the bead from jumping back into

the rim. Now work the second lever under the bead to the right of the first until there's enough slack to move it freely.

3. Slide the second lever around the rim clockwise until one bead is entirely off. Pull the tube out of the tire.



FIND THE PUNCTURE

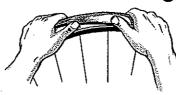
1. To avoid getting another flat quickly, find the cause of this one. Inflate the tube to locate the leak.

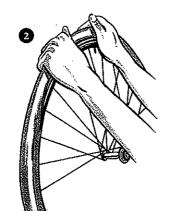


2. Run your gloved hand or a piece of cloth along the inside of the tire to feel for any debris penetrating the tread. Now check the outside of the tire for objects that haven't worked through the tread yet. Remove all debris.

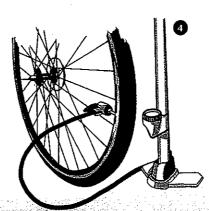








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INSTALL THE **NEW TUBE**

1. Align the label on your tire with the rim's valve hole (this will make future punctures easier to locate). Inflate your new tube just enough to hold its shape, insert the valve into the rim, and tuck the tube into the tire.

2. Beginning at the valve stem, circumference of the tire, using the heels of your hands to push the bead back onto the rim. Make sure the tube isn't getting pinched between the rim and tire as you continue on.

work around the

3. When you reach the area opposite the valve stem, you may need to put a little muscle into getting that last part over

the edge of the rim. Tip: Push the valve stem up into the tire so the bead can pop more easily over the rim wall.

4. Reinflate the tube to around 20 psi, then check that the tire is properly seated on both sides of the rim. If it is, fully inflate it to the psi recommended on the tire's sidewall or to your desired pressure.

For a step-by-step video on changing a flat, go to BICYCLING.com/video/fix-flat-tire.



LAYER LOGIC

Cycling clothing uniquely suited to keep you comfortable in any weather

ARM, LEG, AND
KNEE WARMERS
These are small
sleeves designed to fit
over a specific part of
your body to extend
your clothing—turning short-sleeved
jerseys into long, and
so on. They can also be
peeled off easily if
conditions warrant.

GLOVES

Cycling versions come with extra-thick material in the palm to protect your hands in case of an accident and relieve pressure on the nerves in wrists and palms. Full-fingered versions keep you warm on chilly days.

HEADGEAR

To absorb sweat and give you minimal eye protection from the sun, small, traditional cycling caps fit under your helmet. In the winter, hats vary from tight skullcaps to caps with visors and special built-in earflaps.

SHOE COVERS
Thick socks are impractical in snug cycling shoes. Shoe covers slide on to shelter your feet from wind and cold. They come in two lengths—simple toe covers and full booties with a cut-out for clipless pedal cleats.

KNOW YOUR ETIQUETTE

A FEW BASIC RULES OF THE ROAD











BE PREDICTABLE

Nobody feels safe around the car that's swerving, not using signals, and stopping suddenly. Ride as you would drive—as if you were trying to pass a driver's-license test.

STICK TO

In most states, bikes are considered vehicles. When riding in the road, always signal, make complete stops at signs, and wait for red lights for your turn to ride through.

RIDE TO THE RIGHT

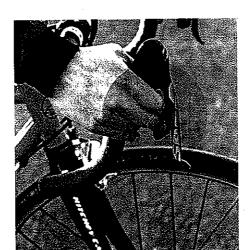
If there's no shoulder on a two-way street, it's always safer to stay a couple of feet out into the road. You'll be visible and force cars behind you to move into the oncoming lane to pass you.

...EXCEPT WHEN TURNING LEFT

For this move, you'll want to move from the right to the middle of the lane or merge into the left-turn lane if there is one. Check over your left shoulder for oncoming traffic and signal left before moving over.

STAY OFF

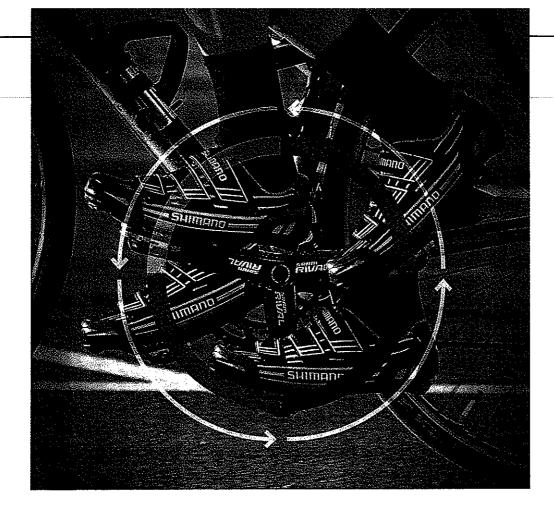
Lousy sight lines and people entering or exiting doorways and driveways make riding on sidewalks an accident waiting to happen. If you have to, and the city permits it, ride no faster than 6 to 8 mph—the speed most people jog.



Be Shifty

Anticipation and timing are essential aspects of shifting smoothly. When you're approaching a red light, shift

before your cadence has slowed so you don't lose your momentum—and with it some control of the bike. The key to good shifting is consistency in pedaling. That means turning the pedals at the same cadence even as the pavement rises and falls. In general, if the road goes uphill, you'll shift into lower gears to make it easier; heading downhill, you'll do the reverse. The shifts you make with your right hand will compensate for small changes in the road and wind; your left hand is for responding to bigger changes—like a steep hill. As you get to know your bike and become more comfortable with cadence, you'll use your right shifter frequently and your left shifter less often. But it's important to use each to your advantage, so play with both enough to be ready when the time comes to use them.



Pedal Like a Pro

ne tip of the pros is that staying "light"

on the pedals keeps them ready for anything their competitors throw at them. If they want to surge ahead, they can quickly do so without shifting. When they do choose to shift, it's easy and whisper-soft because the tension on the chain is so low. Even if you never plan on racing, these techniques help you become a better rider. Sometimes you'll need a burst of speed to make it through a yellow light, and this makes you nimble and efficient. Being light is also being relaxed—an advantage in any situation.

Staying light on the pedals is all about spinning with smooth, evenly distributed power. There's an easy way to tell which part of the pedal stroke you're using. If your butt lifts slightly off the saddle when your cadence is high, it's because your legs are hammering downward—but neglecting the rest of the stroke. This is referred to as "pedaling squares"—the opposite of nice circles.

Starting with your right foot in the 2 o'clock position, control the power of your stroke so you don't just force it down. This will use mostly the quads in

the front and top of your leg. As you reach the bottom—the 4 o'clock to 7 o'clock position—imagine dragging the bottom of your shoe against the ground as if wiping mud off the bottom. Your foot should pull back, engaging your glute muscles. At this point, your left foot will be in the power position, ready to push down, so your right foot will be tempted to slack off and take a break. Lifting up and over the back and top of the right pedal to complete your circle is the most important (and trickiest) part of the stroke. Lift up and over through the 8 to 11 o'clock positions. This will take pressure off the down-stroke power in your other leg and allow your feet to move in beautiful, flowing circles.

It's sometimes best to pull your foot up hard into the top of your shoe then forward over the top of your circle. This uses your calves and glutes and feels a little like scrambling up a rocky slope. And mind your pedaling when climbing—that's when it's hardest to keep things together and flowing.



TAKE THESE TO GO

Stuff to keep in your saddle bag on every ride

A tire lever (or two)

A tube—out of the box and tightly encased in plastic wrap for ultimate shrinkage

Patch, glue, and emery cloth (essentially a patch kit without the box)

Cash (for food, bus fare, or as an emergency tire boot to keep the tube from pushing out of larger holes or gashes in your tire)

CO, and inflator

ID/insurance card/debit card (Note: Debit card does not work as a replacement for cash in a tire boot)

A small multitool

A hand pump for backup duty (carried on the bike or in your pocket)

For hundreds of other expert tips for getting started riding—from how to buy a bike to how to ramp up your riding to lose extra pounds—buy The BICYCLING Big Book of Cycling for Beginners. \$22; rodalestore.com.